FM50™ is the latest generation CBRN full face mask specifically designed to meet the latest NATO forces military mask requirements. Developed to counter the multiple CBRN threats encountered in modern war fighting, anti-terrorist and peace-keeping operations, the FM50 brings a whole new dimension to respirator design, comfort and protection.

**UNIQUE VISOR TECHNOLOGY**

- Unique polyurethane visor is highly flexible plus scratch and impact resistant.
- Fully optically correct.
- Panoramic visor design gives maximum field of vision and wearer recognition.

**COMMUNICATIONS**

- Electronic Communication Port (ECP) allows a Voice Projection Unit (VPU) to be safely connected in a CBRN environment to an internal microphone.
- Additional communication systems can be attached via this ECP using an appropriate lead.
THE FIRST CHOICE FOR DEFENCE

USER COMFORT

- Available in 3 sizes.
- Chlorobutyl rubber and silicone blend giving the mask a high degree of flexibility and comfort for extended use.
- Unique twin conformal low profile filters.
- 6 point skull cap head harness with low profile pre-adjusted brow straps.
- Reflex seal with low profile brow for helmet compatibility.
- Extended chin flap for CBRN garment compatibility.
- High flow fail safe drinking device enables connection to a canteen or bladder type system.

ACCESSORIES

- A fully integrated, lightweight protective hood is available in 2 sizes:
  - Manufactured from the latest materials, providing full head and neck protection.
  - 24 hours protection against agent permeation.
  - Flame retardant and tested to 800°C.
  - Simple to install and remove.
- Range of mask carriers.
- Clear outserts for extreme environments.
- Blueblocker outsert delivers sharper images by filtering out specific light wavelengths.
- Sunlight outserts for high intensity light situations.
- Laser outserts for protection against specific wavelengths.
- Vision correction assembly allows prescription lenses to be mounted inside the mask.
- Military canteen or bladder type systems for hydration.
- Voice Projection Units for voice amplification.
- Range of earpieces and headsets including bone conduction devices.
- Push to talk options.
- Sizing Gauge.

FILTRATION

- Twin filter design significantly reduces breathing resistance and improves weight distribution.
- Bayonet fit provides quick and efficient filter attachment.
- Filters can be replaced without breaking the protective seal through self sealing valves.

COMMUNICATIONS

- Voice Projection Unit

VISION

- Clear outsert
- Blueblocker outsert
- Sunlight outsert
- Laser outsert
- Vision correction assembly

STORAGE & CARRIERS

- Universal carrier

MASK HOODS

- Tactical hood
### FM50 Technical Data

The FM50 has been designed to be compliant with the latest US and NATO military CBRN requirements. The following data gives a good indication of its performance.

### FM50 Mask Performance

<table>
<thead>
<tr>
<th>CBRN Agent Resistance</th>
<th>FM50 Performance</th>
<th>Breathing Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mustard (H) / Sarin (GB) Soman (GD) / VX</td>
<td>Greater than 36 Hrs</td>
<td>Re-breathed CO₂: 0.8%</td>
</tr>
<tr>
<td>Laboratory Protection Factory Performance (Sodium Chloride)</td>
<td>Greater than 10,000</td>
<td>Inhalation Resistance at:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 L/Min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95 L/Min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>160 L/Min</td>
</tr>
<tr>
<td>Weight</td>
<td>840 grams</td>
<td></td>
</tr>
</tbody>
</table>

**Field of View**

Visual Field Score - NIOSH CBRN APR Standard: 96

### FM50 Filter Performance

The FM50 filter canister protects the wearer against all chemical and biological agents in aerosol, liquid and vapour form including:

a. Nerve Agents
   - “G” Series
   - “V” Series
   - Any thickened form of agent

b. Blister Agents
   - Mustard
   - Lewisite
   - Any thickened form of agent

c. Blood Agents
   - Hydrogen Cyanide
   - Cyanogen Chloride
   - Chloropirin
   - CS
   - CN
   - OC (Pepper Spray)

d. Riot Control Agents

Typical filter performance compared to NIOSH CBRN Cap 1 requirements:

<table>
<thead>
<tr>
<th>NIOSH CBRN Test Agent</th>
<th>Typical Performance</th>
<th>NIOSH CBRN Cap 1 Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclohexane</td>
<td>&gt;20 mins</td>
<td>15 mins</td>
</tr>
<tr>
<td>Hydrogen Cyanide (AC)</td>
<td>&gt;45 mins</td>
<td>15 mins</td>
</tr>
<tr>
<td>Cyanogen Chloride (CK)</td>
<td>&gt;45 mins</td>
<td>15 mins</td>
</tr>
<tr>
<td>Phosgene</td>
<td>&gt;100 mins</td>
<td>15 mins</td>
</tr>
</tbody>
</table>

The Americas

t: +1 888 286 6440
e: customerservice@avon-protection.com

Europe, Middle East, Asia, Africa & Australasia

t: +44 (0) 1225 896705
e: protection@avon-protection.com

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